

## **PCB Remediation Waste - 761.61 Things to Consider and Lessons Learned**

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### **PCB Remediation Waste - 761.61**

There are 3 options under 761.61:

761.61(a) Self-implementing on-site cleanup and disposal of PCB remediation waste

- Allows the segregation of waste for disposal purposes (<50 ppm and TSCA-level)
- 3 pages of regulations and reference to several subparts
- Prescriptive instructions on how to conduct a site remediation
- Requires EPA approval

761.61(b) Performance-based disposal

- Less than half a column of regulatory language
- All waste must be disposed as if TSCA-level - solids at a TSCA EPA-approved landfill
- Requires cleanup to < 1 ppm in soil

761.61(c) Risk-based disposal

- Allows proposal of alternative methods
- Requires EPA written approval

### **Basic Differences**

761.61(a) Self-implementing

- could save substantial money because of waste segregation
- requires massive amount of samples
- work plan must be submitted to EPA for approval before cleanup can begin
- complex field procedures

761.61(b) Performance-based disposal

- expensive because all waste is considered TSCA level
- no reporting or complex field procedures
- no prior approval required – fastest option

761.61(c) Risk-based disposal

- propose other cleanup options/procedures to EPA
- requires written EPA approval which may take a long time

## Conducting remediation pursuant to 761.61(a) Self-Implementing

Things to Consider:

Site Characterization – 761.61(a)(2) and Subpart N

3-meter grid for sample locations oriented on magnetic compass – be careful laying this out! You will need to find sample locations perhaps months later.

Notification and certification – 761.61(a)(3)

Prepare a work plan detailing remediation procedures and attach the site characterization data for EPA to review.

The work plan does not need to be huge. Make it simple and easy to review.

EPA has 30 days to review the plan before the work can begin. No formal response from the EPA is required. You may assume approval after 30 days.

Think about preparing a generic work plan if you anticipate several sites! Once you have a generic work plan, you can attach specific site characterization data for different sites. This will simplify the review process for the EPA and save everyone time.

### Tips on EPA Work Plan – 761.61(a)(3)

Make it short and sweet!

Make special note of any areas where you are requesting a waiver from specific regulatory citations

Restate regulatory requirements in layman's language

Provide site characterization data with site maps

Include a schedule (approximate start date and best guess of how long the work will take)

Be sure the plan has the signature of owner/appropriate person – 761.61(a)(3)(E)

In other words:

Say what you're going to do, how you're going to do it, and when you're going to do it!

### What doesn't work! – Some deviations from the regulation to consider:

761.283(b)(1)(i) – Orienting the sampling grid on magnetic compass points

If your site geometry doesn't work well with this, consider proposing something else. It's more important to be able to find sample location points later!

Propose a sampling strategy for interim soil layers – the layers between initial characterization sampling and final verification samples. This could substantially reduce the number of samples, saving time and money.

761.283(b)(1)(ii) – Selection of sample locations

This section instructs you to move your verification sampling grid one meter north and east, if an area is "re-cleaned". In all but the simplest sites, **this does not work!** The problems occur when your excavation becomes "stair-stepped". I recommend requesting a waiver to this section in your Work Plan.

## **Recommendations for Sampling**

- I recommend discrete sample analysis for site characterization – 761.265(a) and 761.283(b)(3)  
The whole idea is to be able to understand what you have at the site to choose the appropriate cleanup option – and then segregate the waste for disposal. Sample results will help you make decisions on how to handle the site.
- Consider alternate sampling scheme for interim layers. If the site is big enough, this can save you time and money. But be sure whatever you propose makes sense to your field people. It is probably a good idea to base it either on your 3 or 4.5 meter grids.
- Final Verification – 761.61(a)(6) and Subpart O  
I recommend a combination of discrete and composite samples. Especially in Texas because the TCEQ doesn't accept composite samples for final verification.

All this needs to be considered before work is done and must go into the Work Plan that must be submitted to the EPA before work can begin – 761.61(a)(3)

### **Here's a sampling nightmare for you -**

Have you ever noticed that characterization sampling is done on a 3 meter grid - but final verification sampling is done on a 4.5 meter grid?? (especially if you are compositing)!! This may sound easy on paper but can be nightmare in field. Carefully consider how you are going to label and keep track of grid and sample locations.

### **Cleanup Levels - 761.61(a)(4)(i)**

- High Occupancy areas – (residential) 761.61(a)(4)(i)(A)  
Less than 1 ppm without controls or up to 10 ppm with controls
- Low Occupancy areas – (industrial) 761.61(a)(4)(i)(B)  
Less than 25 ppm without controls or up to 100 ppm with controls

However, your State requirements may be different. Check to see which requirement will drive your cleanup (the lowest value).

### **Once remediation begins:**

- Address the TSCA-level areas first if possible - this will simplify decontamination procedures.
- Keep waste segregated - stockpiles should be in separate areas to prevent cross-contamination - keep track of when each stockpile is started for "Out-Of-Service" dates.
- Manifesting, Transportation, and Disposal procedures will be different for the different waste streams.
- All this sounds easy on paper - but things can get confusing in the field! Always know what level waste you are dealing with at any given time!!

Remember – There are no requirements to sample the stockpiles under this regulation. The waste has already been adequately characterized. However, check requirements for your specific waste disposal facility.

### **Decontamination Procedures – 761 Subpart S – Double Wash/Rinse Method for Decontaminating Non-Porous Surfaces**

This method is easy to follow, however....

Beware!!! You **can not** absorb your decon fluids into your stockpile (a standard practice on most remediation projects!)

761.378(c) Disposal – this section directs you back to 761.79(g)

Basically, you must collect the decon fluid and dispose of it as a liquid. So be sure your field procedures are set up to do this!

### **Don't forget about your Transporter!**

761.202(b)(1)(ii) – states that a generator of PCB waste shall not “Offer the PCB waste to **transporters**, disposers, or commercial storers of PCB waste who have not received an EPA identification number.”

Just because your transporter is qualified to haul hazardous waste does not mean they can haul PCB waste. They must have submitted a “Notification of PCB waste activity” form (EPA Form 7710-53) to the EPA and received an identification number. (761.205)

Also, be sure that your manifests are filled out correctly (761.207 and 761.208) and all transport vehicles are correctly placarded and labeled.

### **Reports and Recordkeeping**

Besides the report you will submit to Lou at the end of your project, there are numerous requirements for recordkeeping and reports.

Some of the references for a generator to look over are:

761.180 - Records and monitoring (Annual Document Logs are described here)

761.209 - Retention of manifest records

761.215 - Exception reporting

761.218 - Certificate of disposal

## **A TALE OF TWO SITES**

### **SITE A**

- Small site - 0.12 acres
- Surrounded by residential properties
- Only one characterization sample > 50 ppm PCBs
- Off-site contamination

Even though only one characterization sample was > 50 ppm PCBs,

**761.61(b) Performance-based disposal** was the chosen option.

All waste went to a TSCA landfill!

Why did we choose 761.61(b)?

- Small site - so (hopefully) not much waste to dispose - even though the majority of the waste would be < 50 ppm.
- Residential area and off-site contamination dictated a fast response.

Financial Analysis:

If we had chosen **761.61(a)** and had been able to segregate waste for disposal:

200 c.y. of soil could have gone to a municipal landfill authorized to take 1- 49 ppm PCBs for an estimated cost of **\$ 4,200.**

Under **761.61(b)** with disposal at a TSCA landfill:

Actual cost to dispose of the soil was approximately **\$ 32,000.**

We could have saved approximately \$ 27,800 in disposal costs if we had used 761.61(a) – so why did we use the more expensive option?

**What we “saved” by using 761.61(b):**

- Didn't have to wait 30 days for EPA approval
- Didn't have to develop a Work Plan
- Kept good community relations by moving fast
- Saved money with fewer samples
- Saved money on Consultant time for developing Work Plan

We felt the benefits outweighed the \$ 27,800 in disposal costs!

## **SITE B**

- Large site - approximately 1 acre of impacted soil
- Surrounded by industrial properties
- Many characterization samples > 50 ppm PCBs
- Off-site contamination

761.61(a) was the chosen option for this site.

Some site statistics:

The remediation area contained 420 3-meter grids.

Sampling Summary:

- 634 Delineation Samples
- 235 Composite Verification Samples
- 240 Discrete Verification Samples

Over 1100 samples analyzed

Over 2750 samples collected

Disposal Summary:

TSCA Waste (> 49 ppm PCBs)

- 42 Railcars
- 5 Truckloads

**2,712 Tons** total

Non-TSCA Waste (< 50 ppm PCBs)

- 399 Truckloads

**7,182 Tons** total

Why did we use 761.61(a) when it meant developing a Work Plan, waiting 30 days for approval, all those samples and all those complex field procedures? **Cost Savings!!!**

7,182 tons of waste disposed at a municipal landfill instead of a TSCA landfill - for a **savings** of approximately \$ **500,000** for the project!

**Is it worth it to use 761.61(a)?**

Before beginning a major remediation project, do a cost analysis.

**The Problem:**

**Using 761.61(a) for a large site makes economic sense. However, a large site is not suited to the rule as written – sampling requirements are written for small to medium sites!**